

IN THE CLAIMS

1 - 23. (canceled)

24. (New) A method comprising:

providing an application programming configuration for embedded device that enables independent component communications via object and expression protocols;

implementing an information kit that provides virtual nodes for connecting both a first subscribing component and a second publishing component and that enables indirect communication exchange between said first component and said second component, wherein said information kit registers the request for said data and, when said data is published by said first component to the information kit, the information kit provides a copy of said data to said second component;

enabling a plurality of components including:

a registration mechanism for registering said request for said data from said second component; and

an information kit (IK) manager, associated with said information kit, that (1) identifies which data among multiple published data on the information kit is a requested data by said second component and (2) determines when the data published by said first component is the requested data, wherein when the data published is the requested data, the IK manager provides said data to said second component, wherein only data which matches a requested data is provided to said second component.

packaging said request as an information kit subscription object that comprises an identifier (ID) of the requested data along with request parameters and a node ID for said second component;

publishing said data within an information kit publication object that comprises an identifier (ID) of the data and the value of the data;

wherein said enabling said IK manager further comprises :

enabling: (a) a monitoring function that identifies when a publication object is placed on said information kit; and (b) a notification mechanism that responds to a publication of said publication object on said information kit by:

determining when an ID of said publication object matches the ID of said requested data; and

notifying said second component of a presence on the information kit of said requested data;

wherein said enabling said information kit further comprises providing multiple virtual nodes for expanding said modular computer system to include additional components;

providing a queue for storing published data, said queue having means for arranging said published data according to some predefined criteria, and means for issuing the published data at a front of said queue to components that registered a request to receive said published data;

wherein said queue is a priority-based FIFO queue, and said implementing said IK manager further comprises arranging published data within the queue, wherein published data having a same priority are issued in an order of entry into the queue while published data having a higher priority are published prior to published data with lower relative priority;

monitoring a level of freshness for a publication object on the information kit;

triggering a publication of more current publication data from said first component, when a freshness of said publication data is below a predetermined level;

wherein said triggering occurs based on one of multiple triggering conditions from among: (1) said publication data arrives at a front of said queue for issuing out to said system; (2) said IK manager issues a refresh command with respect to the publication data; and (3) said publication object self monitors its level of freshness and dynamically initiates a refresh operation;

wherein published data of a stale publication object is discarded when a refresh operation provides a more current publication object;

generating and publishing said publication object based one of multiple triggers from among: (1) an expiration of a predefined interval tracked by said first component; (2) an expiration of a refresh period for a previously published object; (3) a notification received by said first component that a particular action has occurred on said system, wherein said action includes publication of another publication object to said information kit; and

wherein said second component is an intelligent agent and said method includes receiving a notification of publication of the publication object and responding to said notification by completing a function within said modular computer system.